IN THE CLAIMS:

Please amend Claims 36, 49, 77, 96 and 117, and add new Claim 125 as shown below. The claims, as pending in the subject application, now read as follows:

1. to 35. (Canceled)

36. (Currently amended) A hierarchical data display method for displaying hierarchically-managed data items, comprising steps of:

dividing a display area into an area~~,~~ in which a data icon ~~icons~~ representing a data item ~~items~~ belonging to one level is ~~are~~ displayed, and an area in which a data icon representing a data item belonging to a child level is ~~levels are~~ displayed; and

displaying said data icons with a size varied depending on a hierarchical depth and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

37. (Original) A hierarchical data display method according to claim 36, wherein as said hierarchical depth increases, said data icon size is decreased.

38. (Original) A hierarchical data display method according to claim 37, wherein as said hierarchical depth increases, said data icons are simplified more greatly.

4. 1

39. (Original) A hierarchical data display method according to claim 36, wherein said sizes of said division areas are determined on the basis of the number of data items belonging to one level and the number of data items belonging to child levels.

6. 1

40. (Original) A hierarchical data display method according to claim 36, wherein when there are a plurality of child levels, a display area for each child level is determined according to the number of data items belonging to levels subordinate to said child level.

A1 Cont

7. 1

41. (Original) A hierarchical data display method according to claim 36, wherein said child levels are displayed in a background expressing a parent level, and said background is selected and displayed so that a hierarchical depth can be distinguished.

5. 4

42. (Original) A hierarchical data display method according to claim 39, wherein as said hierarchical depth increases, said background is displayed in a deeper color.

8. 1

43. (Original) A hierarchical data display method according to claim 36, further comprising a step of zooming in a desired level by performing a given operation after designating a display area for said desired level.

10. 1

44. (Original) A hierarchical data display method according to claim 36, further comprising a step of displaying the detailed contents of a desired level by performing a given operation after designating a display area for said desired level.

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9. 8

~~45~~. (Original) A hierarchical data display method according to claim ~~43~~, further comprising a step of zooming out a level zoomed by performing said given operation so as to display a parent level.

11. 1

~~46~~. (Original) A hierarchical data display method according to claim ~~36~~, further comprising a step of grouping a plurality of desired data icons, and displaying a leading data icon in such a way that it can be recognized that a plurality of desired data icons are grouped together.

12. 11

~~47~~. (Original) A hierarchical data display method according to claim ~~46~~, further comprising a step of displaying a list of said plurality of data icons grouped together.

A1 Cont

13. 11

~~48~~. (Original) A hierarchical data display method according to claim ~~46~~, further comprising a step of rearranging a plurality of data icons grouped together, a step of releasing a group, and a step of deleting a desired data icon from a plurality of data icons grouped together.

14.

~~49~~. (Currently amended) A hierarchical data browser system for displaying hierarchically-managed data items, comprising:

a display area dividing means for dividing a display area into an area~~;~~ in which a data icon ~~icons~~ representing a data item ~~items~~ belonging to one level is ~~are~~ displayed, and an area in which a data icon representing a data item belonging to a child level is ~~levels are~~ displayed; and

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a data icon display means for displaying said data icons with a size varied depending on a hierarchical depth and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

15. 14

~~50~~. (Original) A hierarchical data browser system according to claim ~~49~~, wherein said data icon display means decreases said data icon size as said hierarchical depth increases.

16. 15

~~51~~. (Original) A hierarchical data browser system according to claim ~~50~~, wherein said data icon display means simplifies said data icons more greatly as said hierarchical depth increases.

A1 Cont

17. 14

~~52~~. (Original) A hierarchical data browser system according to claim ~~49~~, wherein said display area dividing means determines sizes of division areas on the basis of the number of data items belonging to one level and the number of data items belonging to child levels.

18, 14

~~53~~. (Original) A hierarchical data browser system according to claim ~~49~~, wherein when there are a plurality of child levels, said display area dividing means determines a display area for each child level on the basis of the number of data items belonging to levels subordinate to said child level.

19. 14

~~54~~. (Original) A hierarchical data browser system according to claim ~~49~~, wherein said data icon display means includes a background display means for displaying

data items belonging to the same level in the same background, said child levels are displayed in a background expressing a parent level, and said background is selected so that a hierarchical depth can be distinguished.

20. 19

~~55~~. (Original) A hierarchical data browser system according to claim ~~54~~, wherein as said hierarchical depth increases, said background is displayed in a deeper color.

21. 14

A1 Cont

~~56~~. (Original) A hierarchical data browser system according to claim ~~49~~, further comprising a zoom-in means for use in zooming in a desired level by performing a given operation after designating a display area for said desired level.

23. 14

~~57~~. (Original) A hierarchical data browser system according to claim ~~49~~, further comprising a detailed contents display means for use in displaying the detailed contents of a desired level by performing a given operation after designating a display area for said desired level.

22. 21

~~58~~. (Original) A hierarchical data browser system according to claim ~~56~~, further comprising a zoom-out means for use in zooming out a level zoomed in by performing a given operation so as to display a parent level.

24. 14

~~59~~. (Original) A hierarchical data browser system according to claim ~~49~~, further comprising a grouping means for grouping a plurality of desired data icons, and

displaying a leading data icon in such a way that it can be recognized that a plurality of data icons are grouped together.

60. (Original) A hierarchical data browser system according to claim 59, further comprising a list display means for displaying a list of said plurality of data icons grouped together.

61. (Original) A hierarchical data browser system according to claim 59, further comprising a means for changing a representative picture of said plurality of data icons grouped together from one picture to another, a means for releasing a group, and a means for deleting a desired data icon from a plurality of data icons grouped together.

62. (Original) A hierarchical data browser system, comprising:

a hierarchical data managing means for managing a plurality of data items hierarchically; and

a level display means that based on information representing a level and being retained in said hierarchical data managing means, defines an area, in which all data items belonging to one level and child levels are displayed, with a border encircling the whole of the area, displays said area as an area having a background painted in a given background color, represents said data items to be displayed in said display area using data icons serving as data identification information, and draws a display area for each of levels to be displayed in said display area; that is, a display area for each of child levels within said level display area using the same component elements.

28. 27
63. (Original) A hierarchical data browser system according to claim 62, wherein said level display means includes an area defining means for calculating in advance a minimum area necessary for displaying data icons in one level display area, and defining a display area for child levels and a display area for data icons proportionally according to a ratio of the number of all data items belonging to child levels and levels subordinate to said child levels to the number of data items belonging to said level to such an extent that said display area for data icons will not become smaller than said minimum necessary area.

A1 Cont

29. 28
64. (Original) A hierarchical data browser system according to claim 63, wherein said level display means makes data icons smaller in size and simpler as said hierarchical depth increases.

30. 28
65. (Original) A hierarchical data browser system according to claim 63, further comprising a zoom-in means for zooming in a level so as to move a view point to a deeper position in a hierarchy, a zoom-out means for zooming out a level so as to move a view point to a shallower position in said hierarchy, and a hierarchical depth indicating means for indicating a hierarchical depth of a zoomed-in level and a zoom direction.

31. 30
66. (Original) A hierarchical data browser system according to claim 65, wherein when said zoom-in means is selected, said zoom direction is a direction toward a deeper position in a hierarchy, and when said zoom-out means is selected, said zoom direction is a direction toward a shallower position in said hierarchy.

67. (Original) A hierarchical data browser system according to claim 63, wherein said level display means includes an assessing means for assessing a size of an area allocated to one data icon relative to a threshold of a size of a level area which is provided as a reference for assessing a size of an area allocated to one data icon, and a setting means for setting at least one of the presence or absence of a data icon picture expressing a data icon, the presence or absence of a data name display, a font size for data name display, and a size of an icon picture according to the result of assessment.

68. (Original) A hierarchical data browser system according to claim 67, wherein when an available memory is small, said assessing means accordingly increases said threshold of a size of an area allocated to one data icon which is used to determine whether or not to display an icon picture.

69. (Original) A hierarchical data browser system according to claim 63, further comprising a grouping means for grouping a plurality of data icons for the sake of management, and displaying them as a group icon.

70. (Original) A hierarchical data browser system according to claim 69, further comprising a list display means for use in displaying a list of data icons belonging to a group corresponding to a group icon by designating said group icon, and a detailed information display means for use in displaying detailed information of data corresponding to a desired data icon selected from said list by designating said data icon.

36.

71. (Original) A hierarchical data browser system according to claim 69, 34
further comprising a means for changing a representative picture of a plurality of data icons grouped together from one picture to another, a means for releasing a group, and a means for deleting a desired data icon from a plurality of data icons grouped together.

37.

72. (Original) An image editing method for cutting out a designated area of an image in a given form, comprising steps of:

preparing a plurality of cutout forms;

designating one of said cutout forms and placing it at a desired position in an image;

changing said cutout form into a desired size; and

outputting a portion of said image inside said cutout form as a cutout image.

A1 Cont

38.

73. (Original) An image editing method for cutting out a designated area of an image in a given form, comprising steps of:

preparing a cutout form and image mutually independently with designating an identifier, position, and size of said cutout form as attributes of said image;

when a registered cutout form is placed at a desired position in an image, if said cutout form is enlarged or reduced to a desired size, registering said identifier of said cutout form, position, and size as attributes of said image; and

outputting a portion of said image inside said cutout form as a cutout image according to said registered image attributes.

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74. (Original) An image editing method according to claim 72 or 73, wherein said cutout form is placed on the center of the portion of an image to be cut out, and then enlarged or reduced with the center position thereof fixed.

75. (Original) An image editing method according to claim 74, wherein said cutout form is composed of a form used to cutting out an image and a form to be output as a perimeter of a cutout.

76. (Original) An image editing method according to claim 72 or 73, wherein said cutout image is used as a Summer image in a data base system.

77. (Currently amended) An image editing method for a hierarchical data management system for managing a plurality of data items hierarchically, comprising steps of:

registering an icon display size representing a size of an icon to be displayed and a data icon display position representing a display position for an icon as attributes of each data; and

determining said icon display size and data icon display position in hierarchical order, and displaying data icons serving as data identification information with a size made different in hierarchical order so that data icons belonging to the same level can be distinguished from data icons belonging to other levels and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

78. (Original) An image editing method according to claim 77, wherein a level or data icon is zoomed in, panned, or zoomed out by varying said icon display size and data icon display position.

79. (Original) An image editing method according to claim 77, wherein an access frequency meaning the number of accesses gained to data is included in said data attributes, and a data icon representing data whose access frequency is relatively large is displayed with a relatively large size.

80. (Original) An image editing method for a hierarchical data management system for managing a plurality of data items hierarchically, comprising steps of:

displaying data icons serving as data identification information with a size made different in hierarchical order;

accessing data corresponding to a desired data icon by designating said desired data icon; and

displaying a data icon representing data whose access frequency is relatively larger with a relatively larger size.

81. (Original) An image editing method according to claim 79 or 80, wherein data icons belonging to the same level are displayed distinguishably from data icons belonging to other levels, and a level containing data whose access frequency is relatively high is displayed with a relatively large size.

82. (Original) An image editing method according to claim 79 or 80, wherein when said data icon displayed with a relatively large size is not accessed for a

period of time exceeding a certain period, said data icon is reduced in proportion to said period during which said data icon is not accessed or an access frequency of another data.

83. (Original) An image editing method according to claim 80, further comprising a step of zooming in, panning, or zooming out a desired level or data icon by designating said level or data icon.

84. (Original) An image editing method according to claim 83, wherein a data icon belonging to a level subordinating a marked level is vignetted and displayed.

85. (Original) An image editing method according to claim 84, wherein said vignetting is achieved by enlarging raw data representing the number of pixels smaller than the number of pixels to be displayed.

86. (Original) An image editing method according to claim 85, wherein a data icon belonging to a higher level is vignetted more intensely.

87. (Original) An image editing method according to claim 77, wherein date information selected from among date information representing a date of creation of data, date information representing a date of access gained to data, date information specified in data is included in said data attributes, said icon display size and data icon display position are determined date-orderly, and thus data icons serving as data identification information are displayed with a size made different date-orderly so that data icons associated with the same date can be distinguished from data icons associated with other dates.

88. (Original) An image editing method according to claim 87, wherein data icons associated with the same date are zoomed in or zoomed out by varying said icon display size and data icon display position.

89. (Original) An image editing method according to claim 87, wherein either said hierarchical display or date-orderly display can be selected.

90. (Original) An image editing method according to claim 77, further comprising a step of displaying a position in a whole hierarchy, which is currently displayed in a screen, within a separate window in the form of a position on a plane defined with vertical and lateral lines and a position in a depth direction, and a step of displaying a desired level at a desired enlargement ratio by designating a desired position within said separate window.

91. to 95. (Canceled)

96. (Currently amended) An image editing system for a hierarchical data management system for managing a plurality of data items hierarchically, comprising:

an attribute registering means for registering an icon display size representing a size of an icon to be displayed and a data icon display position representing a display position for an icon as attributes of each data; and

a first display means for determining said icon display size and data icon display position in hierarchical order, and ~~thus~~ displaying data icons serving as data

identification information with a size made different in hierarchical order so that data icons belonging to the same level can be distinguished from data icons belonging to other levels and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

57. 97. (Original) An image editing system according to claim 56 96, further comprising a first display changing means for zooming in, panning, or zooming out a level or data icon by varying said icon display size and data icon display position.

58. 98. (Original) An image editing system according to claim 56 96, further comprising a second display changing means for registering an access frequency meaning the number of accesses gained to data as an attribute of data, and displaying a data icon representing data whose access frequency is relatively high with a relatively large size.

A2 Cont

63. 99. (Original) An image editing system for a hierarchical data management system for managing a plurality of data items hierarchically, comprising:

a display means for displaying data icons serving as data identification information with a size varied in hierarchical order;

an access means for use in accessing data corresponding to a desired data icon by designating said data icon; and

a second display changing means for displaying a data icon representing data whose access frequency is relatively high with a relatively large size.

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100. (Original) An image editing system according to claim 98 or 99, wherein said display means displays data icons belonging to the same level distinguishably from data icons belonging to other levels, and said second display changing means displays a level containing data whose access frequency is relatively high with a relatively large size.

101. (Original) An image editing system according to claim 98 or 99, wherein when said data icon displayed with a relatively large size is not accessed for a period of time exceeding a certain period, said second display changing means reduces said data icon in proportion to said period during which said data icon is not accessed or an access frequency of another data.

A2 cont

102. (Original) An image editing system according to claim 99, further comprising a first display changing means for use in zooming in, panning, or zooming out a desired level or data icon by designating said level or data icon.

103. (Original) An image editing system according to claim 102, wherein said first display changing means includes a vignetting means for vignetting and displaying data icons belonging to a level subordinating a marked level.

104. (Original) An image editing system according to claim 102, wherein said vignetting means achieves vignetting by enlarging raw data representing the number of pixels smaller than the number of pixels to be displayed.

105. (Original) An image editing system according to claim 104, wherein said vignetting means vignettes data icons belonging to a higher level more intensely and displays them.

106. (Original) An image editing system according to claim 96, wherein said attribute registering means registers date information selected from among date information representing a date of creation of data, date information representing a date of access gained to data, and date information specified in data, further comprising a second display means for determining said icon display size and data icon display position date orderly, and thus displaying data icons serving as data identification information with a size made different date orderly so that data icons associated with the same date can be distinguished from data icons associated with other dates.

107. (Original) An image editing system according to claim 106, further comprising a third display changing means for zooming in or out data icons associated with the same date by varying said icon display size and data icon display position.

108. (Original) An image editing system according to claim 106, further comprising a switching means for selecting either said first display means or second' display means.

109. (Original) An image editing system according to claim 96, wherein said first and second display means display a position in a whole hierarchy, which is currently displayed in a screen, within a separate window in the form of a position on a

plane defined with vertical and lateral lines and a position in a depth direction, further comprising a display designating means for use in displaying a desired level at a desired enlargement ratio by designating a desired position in said window.

110. to 116. (Canceled)

117. (Currently amended) A computer program product comprising a computer usable medium having computer readable program code means for displaying hierarchically-managed data items, said computer program product including:

computer readable program code means for dividing a display area into an area; in which a data icon ~~icons~~ representing a data item ~~items~~ belonging to one level is ~~are~~ displayed, and an area in which a data icon representing a data item belonging to a child level is ~~levels are~~ displayed; and

computer readable program code means for displaying said data icons with a size varied depending on a hierarchical depth and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

118. (Original) A computer program product according to claim 117, wherein said computer usable medium further having a hierarchically-managed data.

119. to 122. (Canceled)

72.

123. (Original) A computer program product comprising a computer usable medium having computer readable program code means for managing a plurality of data items hierarchically, said computer program product including:

computer readable program code means for displaying data icons serving as data identification information with a size made different in hierarchical order;

computer readable program code means for accessing data corresponding to a desired data icon by designating said desired data icon; and

computer readable program code means for displaying a data icon representing data whose access frequency is relatively larger with a relatively larger size.

A2 cont

73.

124. (Original) A computer program product according to claim 123, wherein said computer usable medium further having a hierarchical data and an access frequency data.

74.

125. (New) A hierarchical data browser system for displaying hierarchically-managed data items, comprising:

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a display area dividing device adapted for dividing a display area into an area in which a data icon representing a data item belonging to a level is displayed, and an area in which a data icon representing a data item belonging to a child level is displayed;

and a data icon display device adapted for displaying said data icons with a size varied depending on a hierarchical depth and at a position so that a hierarchical relation between said data icons is represented as a nesting shape.

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